CLAIMS

What is claimed is:

1. A method of validating an e-ticket, comprising the steps of:

a) sending the e-ticket from an initial receiving server S_i to a plurality of servers including S_i, wherein each server returns an answer indicative of whether that server previously answered an inquiry for the e-ticket;

b) collecting the identities of the answering servers in an answer set, $REPLIES_i^\tau$;

c) broadcasting the e-ticket and $REPLIES_i^\tau$ to the plurality of servers, if at least one server previously answered an inquiry for the e-ticket; and

d) collecting the identity of any server S_k broadcasting the e-ticket and an associated answer set $REPLIES_k^\tau$ in a second answer set, $SRVS_i^\tau$ upon receipt of the broadcast.

2. The method of claim 1 wherein step b) is performed until a majority of servers has answered.

3. The method of claim 1 wherein step d) is repeated as long as S_i has not received its own broadcast and there is no server S_k in $SRVS_i^\tau$ such that $REPLIES_k^\tau$ is a subset of $SRVS_i^\tau$.

4. The method of claim 1 further comprising the step of:

e) accepting the e-ticket if S_i receives its own broadcast and $REPLIES_i^\tau$ is a subset of $SRVS_i^\tau$.

5. The method of claim 1 further comprising the step of:

d) rejecting the e-ticket if S_i has received its own broadcast and $REPLIES_i^\tau$ is not a subset of $SRVS_i^\tau$.

6. The method of claim 1 further comprising the step of:

d) rejecting the e-ticket if $REPLIES_i^\tau$ is a subset of $SRVS_i^\tau$ and S_i has not received its own broadcast.

7. The method of claim 1 wherein the e-ticket represents a prior reservation of goods or services.

8. The method of claim 1 wherein the e-ticket contains no information specifically identifying the owner.

9. The method of claim 1 wherein broadcasts are performed in accordance with a selected one of a pure atomic broadcast, a general broadcast, a CT-broadcast, and an OPT-broadcast protocol.

10. A method of validating an e-ticket, comprising the steps of:

a) sending the e-ticket from an initial receiving server S_i to a plurality of servers including S_i, wherein each server returns an answer indicative of whether that server previously answered any inquiry for the e-ticket;

b) selecting a conflict mode if at least one selected server of a majority of servers answered a previous inquiry for the e-ticket; and

c) selecting a conflict-free mode if none of the majority of servers has answered any previous inquiry for the e-ticket.

11. The method of claim 10 wherein step c) further comprises the step of:

i) accepting the e-ticket.

12. The method of claim 10 further comprising the step of:

d) collecting the identities of the answering servers in an answer set, $REPLIES_i^\tau$.

13. The method of claim 12 wherein step b) further comprises the steps of:

i) broadcasting the e-ticket and $REPLIES_i^\tau$ to the plurality of servers; and

ii) collecting the identity of any server S_k broadcasting the e-ticket and an associated answer set $REPLIES_k^\tau$ in a second answer set, $SRVS_i^\tau$ upon receipt of the broadcast.

14. The method of claim 13 wherein step b)(ii) is repeated as long as S_i has not received its own broadcast and there is no server S_k in $SRVS_i^\tau$ such that $REPLIES_k^\tau \subseteq SRVS_i^\tau$.

15. The method of claim 14 further comprising the step of accepting the e-ticket if S_i receives its own broadcast and $REPLIES_i^\tau \subseteq SRVS_i^\tau$.

16. The method of claim 14 further comprising the step of rejecting the e-ticket if S_i has received its own broadcast and $REPLIES_i^\tau$ is not a subset of $SRVS_i^\tau$.

17. The method of claim 14 further comprising the step of:

d) rejecting the e-ticket if $REPLIES_i^\tau \subseteq SRVS_i^\tau$ and S_i has not received its own broadcast.

18. The method of claim 10 wherein the e-ticket represents a prior reservation of goods or services.

19. The method of claim 13 wherein broadcasts are performed in accordance with a selected one of a pure atomic broadcast, a general broadcast, a CT-broadcast, and an OPT-broadcast protocol.